

Applicants: Vadiraja Murthy and Edward R. Burns
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In the Claims:

Please cancel Claims 13-15.

Please add new Claim 19 as follows:

--19. (new) A method for determining the level of erythrocyte adenylate kinase in a serum sample comprising the steps of:

(a) determining the total adenylate kinase activity in the serum sample by mixing the serum sample with an adenylate kinase-specific visualization reagent which reacts with the total adenylate kinase causing a change in absorbance of the mixture, and measuring the change in absorbance of the mixture, the change in absorbance being indicative of the total adenylate kinase activity;

(b) calculating the percentage of erythrocyte adenylate kinase to the total adenylate kinase in the serum sample by: (1) electrophoresing the serum sample in a gel matrix so that the erythrocyte adenylate kinase migrates to a known location on the gel matrix; (2) contacting the gel matrix with an adenylate kinase-specific visualization reagent which reacts with the total adenylate kinase and causes emission of fluorescence upon exposure of the gel matrix to ultraviolet light; (3) exposing the gel matrix to ultra-violet light; (4) determining the level of total adenylate kinase by measuring the total fluorescent light emitted from the

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gel matrix; (5) determining the level of erythrocyte adenylyl kinase by measuring the fluorescent light emitted from the gel matrix at the known location of the erythrocyte adenylyl kinase migration on the gel matrix; and (6) calculating the percentage of erythrocyte adenylyl kinase to the total adenylyl kinase by dividing the level of erythrocyte adenylyl kinase by the level of the total adenylyl kinase; and

(c) multiplying the percentage of erythrocyte adenylyl kinase by the total adenylyl kinase activity to give the level of erythrocytic adenylyl kinase in the serum sample.--

In the Drawings:

Please amend Figure 2 as indicated in the Amendment Pursuant to 37 C.F.R. § 1.123 attached hereto. The attached Amendment requests the substitution of an attached new Figure 2 for current Figure 2. A copy of current Figure 2 is also attached to the Amendment which is marked in red ink to indicate the corrections that have been made in new Figure 2.

REMARKS

Claims 1-4, 8-10 and 13-15 are pending in the subject application. By this Amendment applicants have canceled Claims 13-15 and added new Claim 19. New Claim 19 does not introduce any new matter, and is supported by the specification and Claims as